

Make Your Own Lunarium

Budding stargazers and astronomers – have you ever wondered why the moon seems to follow you home? Or why it's always changing shape? To help you understand the phases of the moon, you can make a little model called a lunarium. It's fun, simple and easy to do!

All you need is:

- 1 sheet of blue card
- sheet of dark card
- White and yellow paper
- A split pin
- Adhesive = glue
- A pair of compasses
- Scissors
- Fine felt-tipped pens (ideally black and white)
- ... and, of course, a little bit of patience!

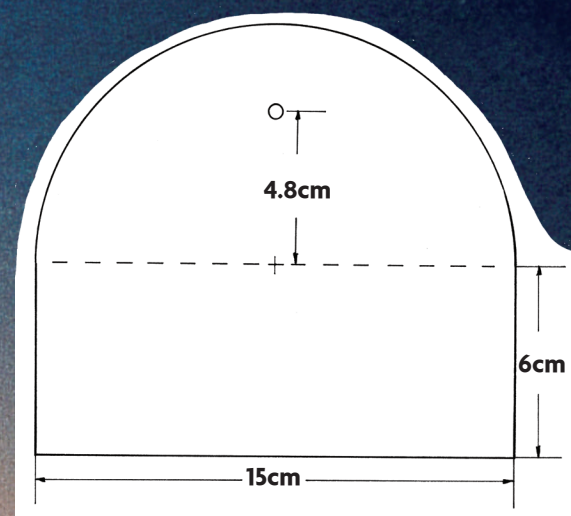
1) To make the sky, take your blue card and draw a circle with the compasses of 7.5 cm (3 in) radius. Then all you need to do is cut the circle out.

2) Cut the horizon out of the dark card as shown to the right.

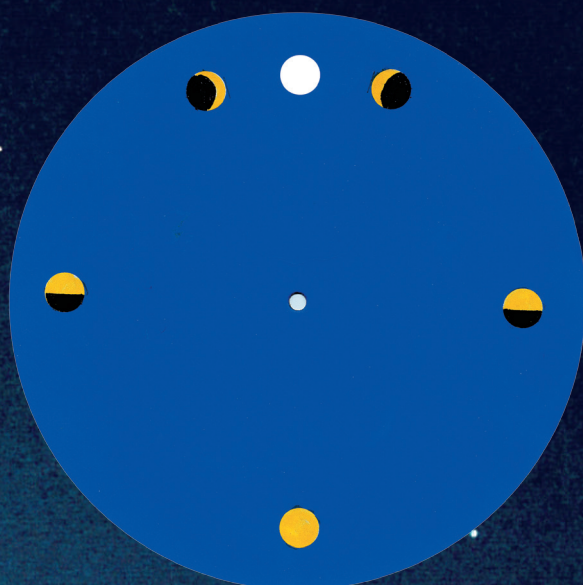
3) To make the sun, cut a disc of about 10 mm ($\frac{1}{2}$ in) diameter out of white paper.

4) Cut 5 similar sized discs out of the yellow paper — these will be the Moon!

5) Use your black felt pen to colour part of the yellow discs to make two crescent and two half Moons. The full moon doesn't need colouring in.

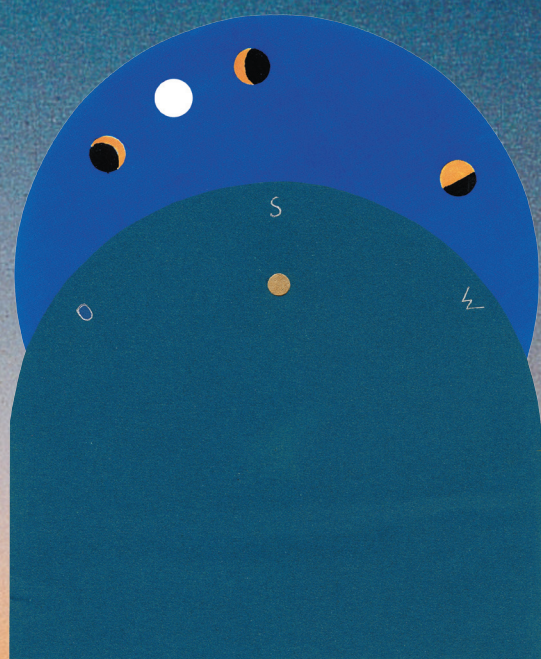


6) Stick the Sun and Moon discs in the right positions as shown below. Make sure the full Moon is exactly opposite the Sun and the half Moons exactly at right angles.



7) With the pin, pierce a hole in the centre of the blue disc and in the marked place of the horizon disc.

Your finished lunarium should look something like this!



You can now use your lunarium to help you understand the phases of the moon!

Turn the blue disc clockwise to show the daily movement. This lets you see when and where the Moon rises in relation to the Sun at different phases. If the white Sun is visible, it is daytime! This lunarium shows five different phases at once.

More stargazing tips are available in *Astronomy for Young and Old*, by Walter Kraul. If you enjoyed making your own lunarium this book will also show you how to make your own planisphere, to track when constellations are visible!